Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) A method for thermomechanical treatment of a round steel rod, ~~rods, wherein a starting material is heated to a heating temperature that is above a recrystallization temperature, austenitized, held for equalization of temperature, then deformed and finally quenched to martensite and tempered,~~ said method comprising:

deforming said steel rod in a single deforming step, coordinated with heat treatment of said steel rod, wherein said single deforming step, coordinated with heat treatment, includes,

heating said steel rod to a heating temperature that is above a recrystallization temperature;

~~using round steel rods as the starting material;~~

equalizing the heating temperature of the ~~starting material~~ steel rod over its length;

causing said [[rods]] steel rod to be ~~transformed~~ deformed by a single step of skew rolling ~~them,~~ while ~~they remain~~ it remains substantially

straight, such that a predetermined twisting of the material occurs in a marginal area of said rod and a desired ~~transformation~~ deformation gradient [[are]] is achieved over a cross section of the rod, [[and]] whereby, after a critical degree of ~~transformation~~ deformation is exceeded, dynamic recrystallization processes take place with greatest intensity in the marginal area; [[and]]

reheating the [[rods]] rod to a temperature above Ac3; and ~~, in order finally to be hardened and tempered.~~

hardening and tempering the rod.

Claim 2. (Currently Amended) The method of claim 1, wherein, in said heating step, the ~~material~~ rod is heated at a rate between 100° - 400°K/s.

Claim 3. (Currently Amended) The method of claim 1, wherein, in said heating step, the ~~starting material~~ rod is heated to a temperature between 700° and 1100°C.

Claim 4. (Currently Amended) The method of claim 1, wherein, in said heating step, the heating is performed inductively.

Claim 5. (Currently Amended) The method of claim 1, wherein [[the]] equalization of the heating temperature of the rod takes place for at least 10 seconds.

Claim 6. (Currently Amended) The method of claim 1, wherein [[the]] a temperature difference over the length of the rod does not exceed 5 K.

Claim 7. (Previously Presented) The method of claim 16, wherein the heating temperature of the rod is kept constant virtually up to its entry into a roll gap of said rolls of the skew rolling stand.

Claim 8. (Cancelled)

Claim 9. (Previously Presented) The method of claim 1, wherein the skew rolling of the rod is performed with an average degree of stretching λ of at least 1.3.

Claim 10. (Currently Amended) The method of claim 8, wherein the maximum ~~transformation~~ deformation occurs in the marginal area of the rods between 0.65 and 1.0 times the diameter of the rod, and the maximum degree of ~~transformation~~ deformation ψ is at least 0.3.

Claim 11. (Previously Presented) The method of claim 1, wherein, in the skew rolling, a maximum local temperature elevation of 50°K is not exceeded.

Claim 12. (Previously Presented) The method of claim 1, wherein the direction of the twisting of the structure in the marginal region of the particular

round rod corresponds to the main direction of tension of a component stressed by torsion.

Claim 13. (Previously Presented) The method of claim 12, wherein the direction of twisting of the structure in the marginal region, with respect to the axis of the round rod, amounts to 35 – 65 degrees of angle.

Claim 14. (Previously Presented) The method of claim 1, wherein the structural distribution over the cross section of the finish-worked round rod leads to a property profile, which is adequate for the tension profile over the cross section in the case of flexural and/or torsional stress.

Claim 15. (Previously Presented) The method of claim 1, wherein the skew rolling is performed in a temperature range of 700° - 1150°C.

Claim 16. (Previously Presented) The method of claim 1, wherein:

said skew rolling is performed in a skew rolling stand;

rolls of the skew rolling stand are adjusted in one of an axial and a radial direction during the ~~transformation~~ deformation operation; and

round rods are produced with a diameter which varies over their length.

Claim 17. (Currently Amended) The method of claim 1, wherein during [[a]] reheating above Ac3 following skew rolling, a temperature difference over the rod length is limited to a maximum of 5°K.

Claim 18. (Currently Amended) The method of claim 1, wherein said steel ~~rods comprise~~ rod comprises spring steel.

Claims 19.-20. (Cancelled)

Claim 21. (Previously Presented) The method of claim 1, wherein the skew-rolled, substantially straight rod is wound into a coil spring.

Claims 22.-23. (Cancelled)

Claim 24. (Currently Amended) The method of claim 21, wherein the winding and/or a bending is performed in the same heat after [[the]] recrystallization and before the hardening and tempering.

Claim 25. (Previously Presented) A method for thermomechanical treatment of steel rods, said method comprising:

starting with a round steel rod;

heating said steel rod to a temperature that exceeds a recrystallization temperature of steel of said rod; and

causing formation of a desired gradient in the degree of recrystallization of said steel of said rod over a cross section of said rod, with a marginal area having a fine-grained martensite structure, whereby said rod has a cross sectional strength profile that reaches a maximum value in said marginal area of said rod;

wherein said step of causing formation of said desired gradient comprises,

equalizing the temperature of said steel rod over its entire length;

maintaining said steel rod at said equalized temperature;

skew rolling said rod while it remains straight, said steel rod entering said skew rolling at said equalized temperature, whereby a predetermined twisting of said steel in said rod is achieved in said marginal area; [[,]] and ~~said desired gradient, are achieved.~~

reheating the rod to a temperature above Ac3; and

hardening and tempering the rod.

Claim 26. (Currently Amended) A method for producing a steel coil ~~springs or stabilizers~~ spring or stabilizer, ~~wherein a starting material is heated to a heating temperature that is above a recrystallization temperature,~~

~~austenitized, held for equalization of temperature, then deformed and finally quenched to martensite and tempered,~~ said method comprising:

using a round steel [[rods]] rod as [[the]] a starting material;

deforming said steel rod in a single deforming step, coordinated with heat treatment of said steel rod, wherein the single step of deforming, coordinated with heat treatment includes,

heating said steel rod to a heating temperature that is above a recrystallization temperature;

equalizing the heating temperature of the ~~starting material~~ steel rod over its rod length;

causing said steel [[rods]] rod to be ~~transformed~~ deformed by a single skew rolling [[them]] step while ~~they remain~~ it remains substantially straight, such that a predetermined twisting of the material occurs in a marginal area of said steel rod and a desired ~~transformation~~ deformation gradient [[are]] is achieved over a cross section of the rod, whereby after a critical degree of ~~transformation~~ deformation is exceeded, dynamic recrystallization processes take place with greatest intensity in the marginal area;

reheating the [[rods]] rod to a temperature above Ac3;

winding the [[rods]] rod to form a coil spring or bending them into a stabilizer; and

hardening and tempering the wound or bent rods.

Claim 27. (Previously Presented) The method according to claim 26, wherein a direction of the twisting of the structure in the marginal region of the round rod corresponds to the main direction of tension of the coil spring or the stabilizer stressed by torsion.

Claim 28. (Currently Amended) The method of claim 26, wherein a direction of twisting of the structure in the marginal region of the rod is oriented with respect to the axis of the round rod, within a range of 35° - 65°.

Claim 29. (Cancelled)

Claim 30. (Previously Presented) The method of claim 26, wherein the skew rolling of the rod is performed with an average degree of stretching λ of at least 1.3.

Claim 31. (Currently Amended) The method of claim 26, wherein the maximum ~~transformation~~ deformation occurs in the marginal area of the rods that lies between 0.65 and 1.0 times the diameter of the rod and is at least 0.3.

Claim 32. (Currently Amended) The method of claim 26, wherein, in said heating step, the material is heated at a rate between 100° - 400°K/s.

Claim 33. (Currently Amended) The method of claim 26, wherein, in said heating step, the heating temperature is between 700° and 1100°C.

Claim 34. (Currently Amended) The method of claim 26, wherein, in said heating step, the heating is performed inductively.

Claim 35. (Previously Presented) The method of claim 26, wherein the equalization of the heating temperature of the rod takes place for at least 10 seconds.

Claim 36. (Currently Amended) The method of claim 26, wherein [[the]] a temperature difference over the length of the rod does not exceed 5°K.

Claim 37. (Currently Amended) The method of claim [[26,]] 40, where the heating temperature of the rod is kept constant virtually up to its entry between said rolls of [[the]] said skew rolling stand.

Claim 38. (Previously Presented) The method of claim 26, wherein, during the skew rolling, a maximum local temperature increase of 50°K is not exceeded.

Claim 39. (Previously Presented) The method of claim 26, wherein the skew rolling is performed in a temperature range of 700° - 1100°C.

Claim 40. (Previously Presented) The method of claim 26, wherein:

the skew rolling is performed in a skew rolling stand;

rolls of the skew rolling stand are adjusted in one of an axial direction and a radial direction during the transformation operation; and

the round rods are produced with a diameter, which varies over their length.

Claim 41. (Currently Amended) The method of claim 26, wherein, during the reheating step, [[the]] a temperature difference over the rod length is limited to a maximum of 5°K.

Claim 42. (Previously Presented) The method of claim 26, wherein the starting material of the rods is spring steel.

Claim 43. (Previously Presented) The method of claim 26, wherein the starting material of the rods is silicon-chromium steel.

Claim 44. (Previously Presented) The method of claim 26, wherein the starting material of the rods is microalloyed steel.